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New evidence confirms land warming record

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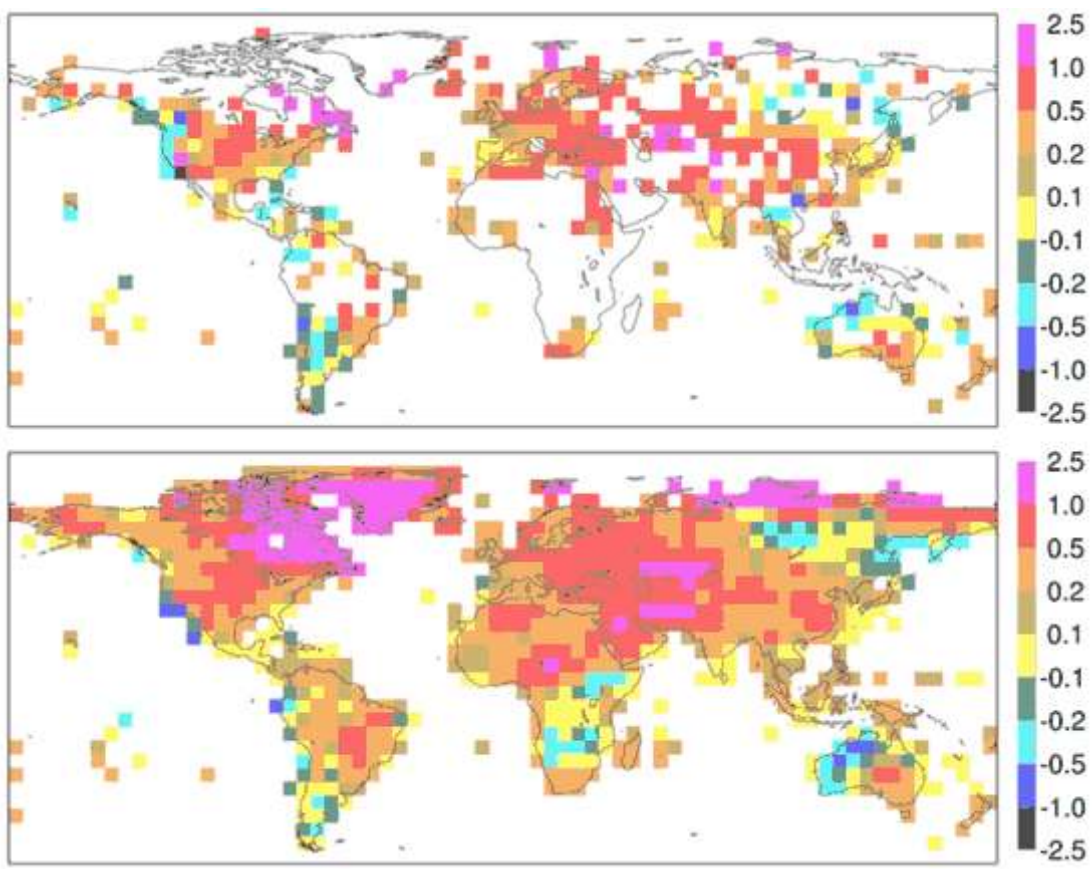
New analysis released today has shown the global temperature rise calculated by the Met Office's HadCRUT record is at the lower end of likely warming. The study, carried out by ECMWF (the European Centre for Medium-Range Weather Forecasts) with input from the Met Office, performs a new calculation of global temperature rise. This independent analysis is based on information from a wide range of sources. It uses all available surface temperature measurements, together with data from sources such as satellites, radiosondes, ships and buoys.

The new analysis estimates the warming to be higher than that shown from HadCRUT's more limited direct observations. This is because HadCRUT is sampling regions that have exhibited less change, on average, than the entire globe over this particular period. This provides strong evidence that recent temperature change is at least as large as estimated by HadCRUT. This conclusion is in contrast to a recently released study by the Institute of Economic Analysis (IEA) think tank based in Moscow. The IEA's output is consistent with HadCRUT as they both confirm the global warming signal in this region since 1950, which we see in many other variables and has been consistently attributed to human activities



The lower figure is the ECMWF analysis which uses all available observations, including satellite and weather balloon records, synthesised in a physically- and meteorologically-consistent way, and the upper figure represents the same period from our HadCRUT record. The ECMWF analysis shows that in data-sparse regions such as Russia, Africa and Canada, warming over land is more extreme than in regions sampled by HadCRUT. If we take this into account, the last decade shows a global-mean trend of 0.1 °C to 0.2 °C per decade. We therefore infer with high confidence that the HadCRUT record is at the lower end of likely warming.

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